IPAdminTool
User's Manual

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1. Introduction

IPAdminTool is a utility program for RIVA IP products, including encoders, decoders, and cameras. The following list provides a brief summary for the feature of this tool.

- Configure IP address, subnet mask, gateway, DNS, and hostname
- Search available IP devices on network
- Show device information
- Update new firmware on single or multiple devices
- Reboot the system remotely

1.1. Requirements

IPAdminTool can be run properly in Windows XP^{TM} or later Windows®.
IPAdminTool.exe and *IPAdminTool.dll* must be in the same folder, otherwise an error message is shown as the following figure.

Figure 1. Warning message for IPAdminTool.dll

Factory default ID and password for firmware update:
ID – root
PW - pass

1.2. Starting/Installing IPAdminTool

IPAdminTool is software application provided on a CD/DVD/USB device.

1. Insert the provided media into your computer's CD / DVD drive and open the media in a Windows Explorer window.
2. Find the IPAdminTool directory on the CD.
3. Copy the IPAdminTool directory with its contents to your computer hard drive.

To start IPAdminTool, run the IPAdminTool.exe file. Then the main page of the tool appears as Figure 1.3.
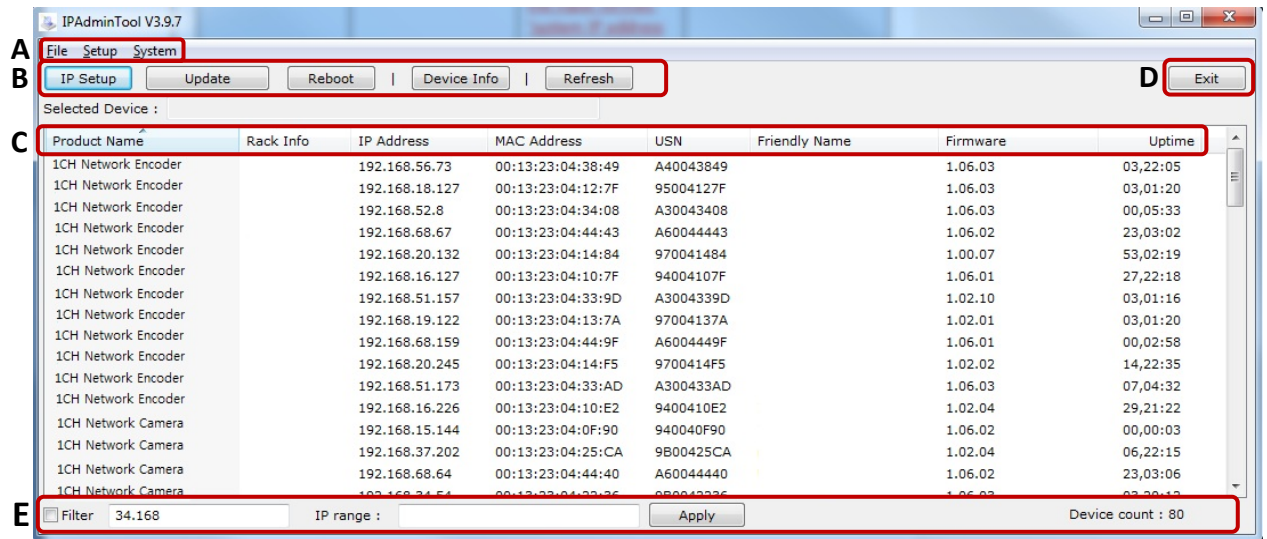
1.3. Menu and button configuration

Figure 2. Menus and buttons

Section A

File
Refresh – Refresh the list and get the IP device information.
Exit – Quit this program.

Setup
IP Address – Set IP configuration such as IP address, subnet mask, default gateway, etc.
Friendly name – Set a friendly name for a selected device.
Frequency setting – Set the message sending frequency for MDNS.

System
Update – Update the firmware or any other required files.
Device info – Show the device information.
Reboot – Reboot the device.

Section B

IP Setup - Set the IP configuration such as IP address, subnet mask, default gateway etc.
Update - Upload the firmware or any other required files.
Reboot - Reboot the device.
Device Info– Show the device information.
Refresh – Refresh the list and get the IP devices information.

Section C

Product Name – Product name of your device is displayed. It can be modified by uploading the brand file involving the product name.
Rack Info – If the scanned device is rack type, the related rack information is displayed.
IP Address – IP Address of your device is displayed.
MAC Address – MAC Address of your device is displayed.

USN – The unique serial number of your device is displayed.
Friendly name – The friendly name of your device is displayed.
Firmware – The current firmware version of your device is displayed.
Uptime – The passed time since the system is booted (Days: Hours: Minutes).

Section D

Exit – Quit this program.

Section E

Filter – Type any part of numbers or alphabet letters (case sensitive) of device name, IP address, MAC address, USN, friendly name, or firmware in the Filter box to search the desired devices.
IP range – Type the IP address range to display devices that are in the IP range to search the desired devices.
Device count – The total number of scanned devices.

2. Scanning Devices

2.1. How to search your device

Before running the IPAdminTool for finding a device, check out if the device is powered on and connected to the network properly. The IP devices connected to the network and turned on are automatically scanned on the main page of the too. It re-scans network to keep updating IP devices on the list every 2 seconds. If required, you can also manually perform the scanning by pressing the *Refresh* button.
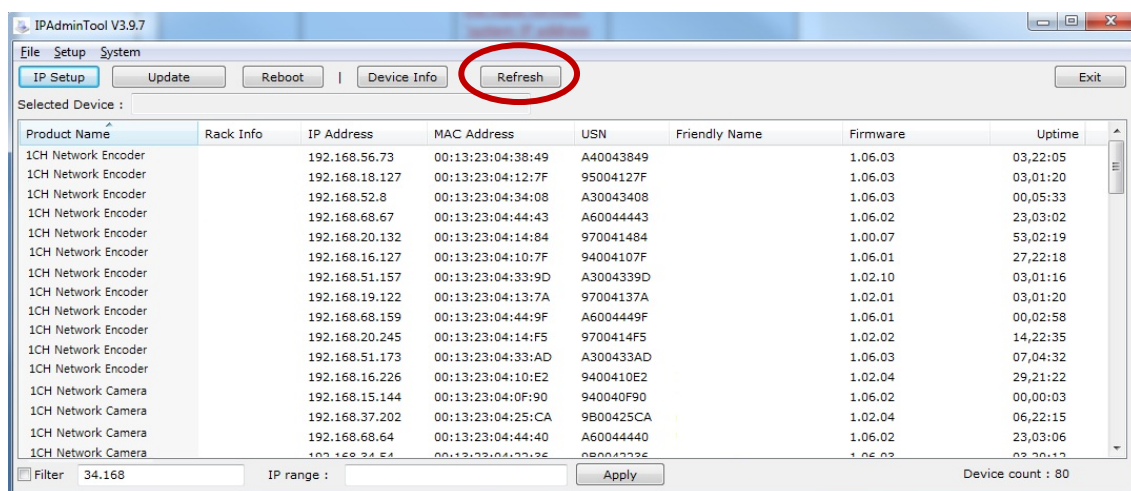

Figure 3. Scanning by the Refresh button

2.1.1. Viewing video on web page

To see the web page for a device, right-click on a product name and then click *Web view* from the short cut menu. To open the web page more simply, just select one or multiple product names and click the Spacebar on your keyboard.
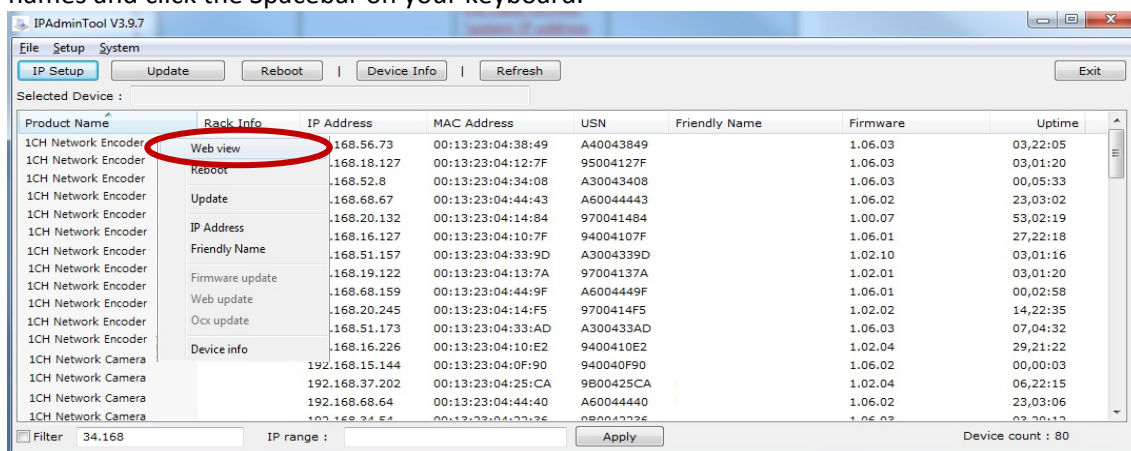

Figure 4. Web viewing option

2.1.2. Searching devices with filtering feature

If your network has multiple IP devices and *IPAdminTool* scans too many devices, you can easily find the desired device by using the filtering feature. Type any part of numbers or alphabet letters (case sensitive) of device name, IP address, MAC address, USN, friendly name, or firmware in the Filter box (e.g. A4, 13.153, A90C, etc.) and click the *Apply* button. IPAdminTool will scan IP devices that include typed numbers or letters only. Refer to the figure below for an example. In this example, all of the IP devices having a letter 'D' in the information are searched.
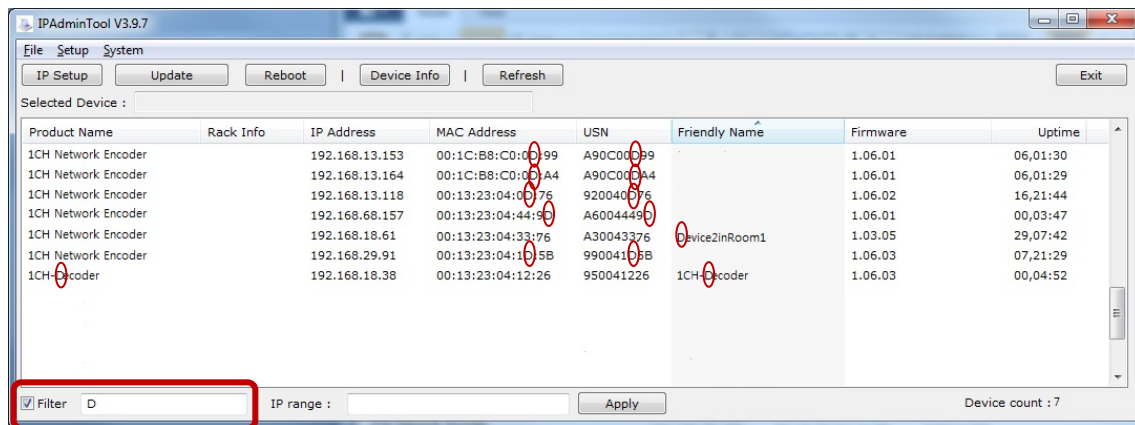

Figure 5. Device filtering

2.1.3. Searching devices with IP address range

You can search multiple devices by specifying the IP address range also. Type the IP address range to display devices that are in the IP range by referring to the following rule.

IP Address Range Filtering Rule
Range input: Start IP Range-End IP Range
IP Range: INT[.INT[.INT[.INT]]]
INT: 0-255

The IP range can be configured with from 1 to 4 integers. The start range value must have the same number of integers with the end range value (e.g. 10.1-100.100). 1 integer means the last section of the IP address, 2 integers mean the last two sections of the IP address, and so on. Refer to the figure below for an example.
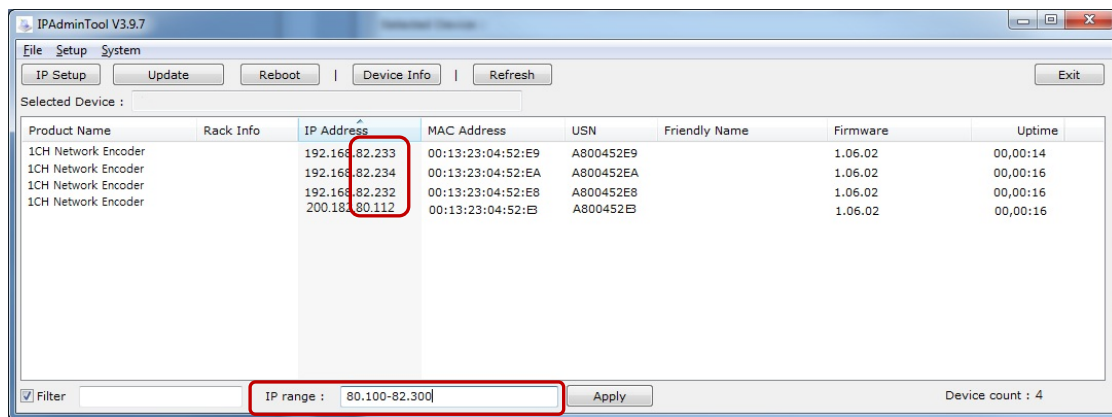

Figure 6. IP range

IP Address Range Filtering Example
IP Range: 80.100-82.300 (Search the devices with last two sections of the IP address.)
Filtered IP address:
192.168.82.233 (O)
192.168.82.234 (O)
192.168.82.222 (O)
220.182.80.112 (O)
192.168.1.120 (X)
192.168.90.12 (X)

2.2. IP management for devices

You can adjust the network setting of a device with IPAdminTool. Select a device from the list and click the **IP Setup** button on the upper menu bar or **IP Address** from the shortcut menu.
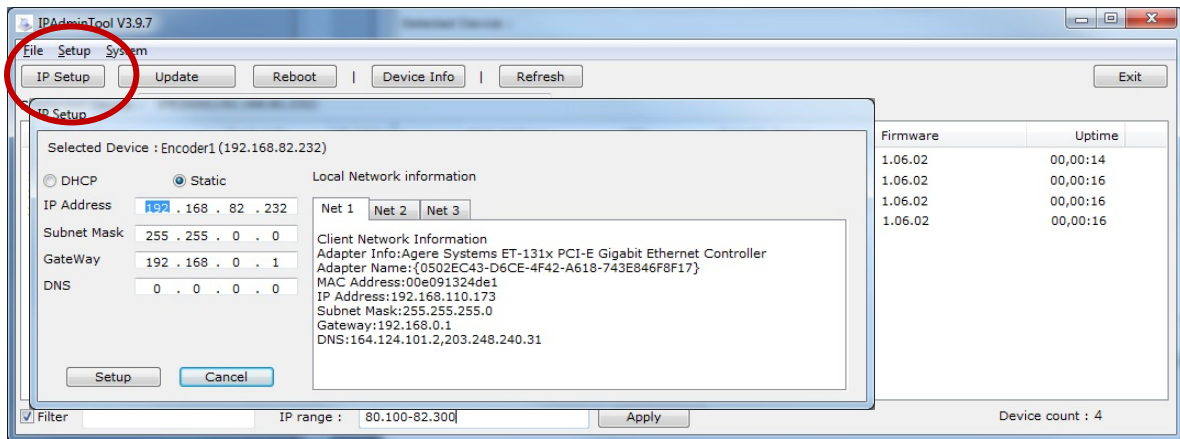

Figure 7. Network setting

DHCP
Let the DHCP server get the IP address automatically.

Static
Set the IP address, Subnet Mask, Gateway and DNS manually according to users' network requirements.

2.3. How to check your device Information remotely

The software version information of IP devices can be displayed by selecting the **System >
Device Info** menu. You can check the information by selecting **Device Info** from the shortcut
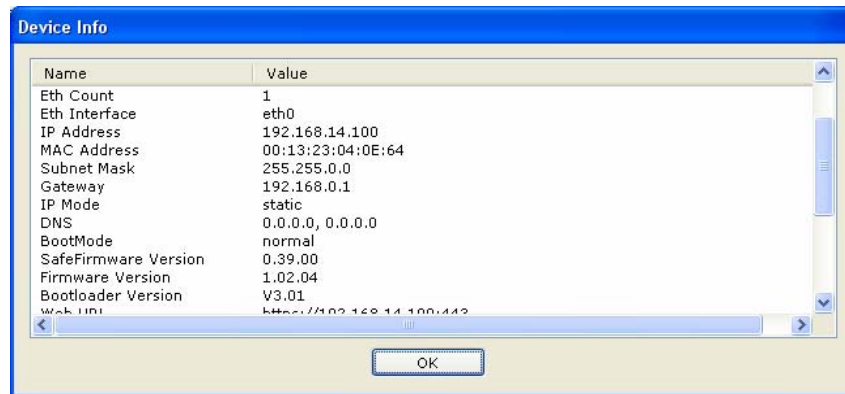menu.

Figure 8. Device information

You can find the device information as below.
- Request ID
- Device Type
- Product Name
- Host Name
- Ethernet Count
- Ethernet Interface
- IP Address
- MAC Address
- Subnet Mask
- Gateway
- IP mode
- DNS
- BootMode
- Firmware Version
- SafeFirmware Version
- Bootloader Version
- Web URL
- Web Port
- RTSP Port
- Update Port
- Uptime
- System Key Method
- Device Serial
- Rack-info
- Description

3. Updating Firmware

IPAdminTool provides the firmware update feature for single or multiple IP devices. To update the firmware for your device, follow the steps described on this chapter.

Step1. Select IP device(s) to update

Select the device you want for the firmware update from the list and it turns blue. You can either update a device one by one or update multiple devices at the same time. To update multiple devices, choose all the devices you want with *Ctrl* or *Shift* and click the **Update** button on the upper menu as the figure below (The mouse shortcut menu also provides the **Update** menu).
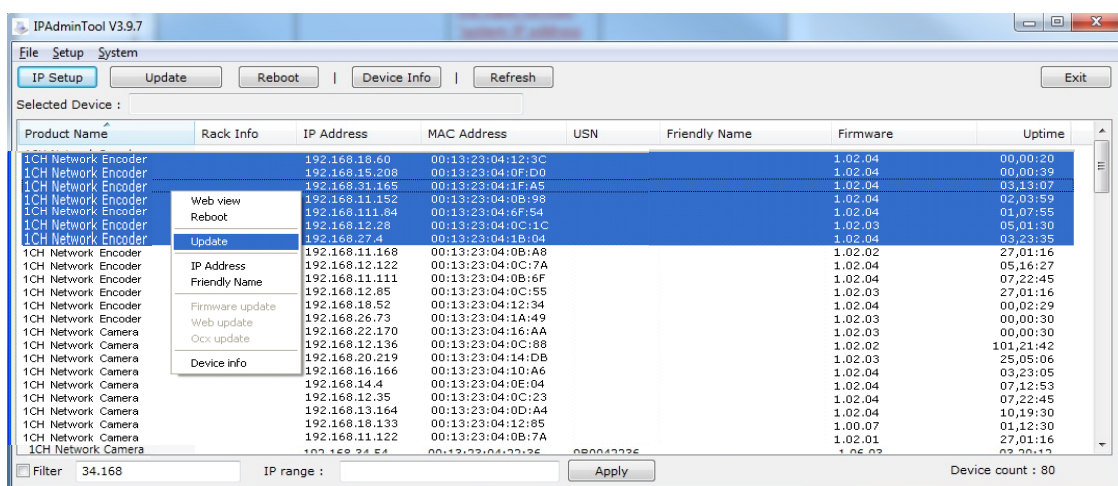

Figure 9. Firmware update of multiple devices

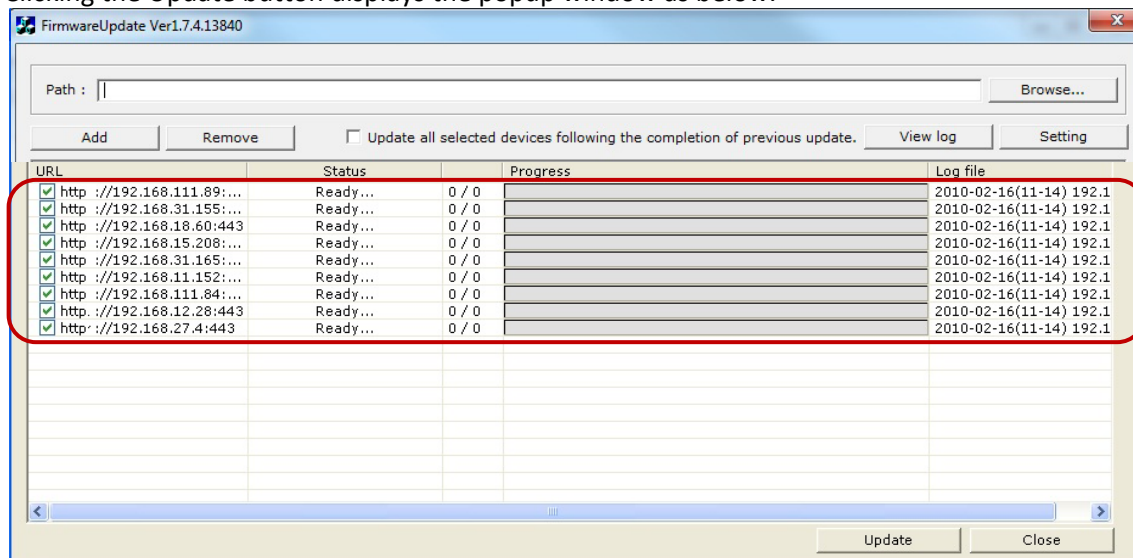Clicking the Update button displays the popup window as below.

Figure 10. Selected device list

Tip. To manually add devices on the firmware update list

Your devices may have been connected to the external network or the mDNS feature may have been disabled on your device. In this case, you can add the device manually by typing the IP address for firmware update.

Select any device listed on the IPAdminTool and click the **Update** button or run FirmwareUpdate.exe from {SDK root}\BIN\TOOLS\AdminTool\. Click the *Add* button, then the '*Add device'* window pops up. Select *https* or *http* according to your device protocol type. Type the IP Address you want to update and click the *Add* button. Then, you can see that the IP adrress is newly added on the list.
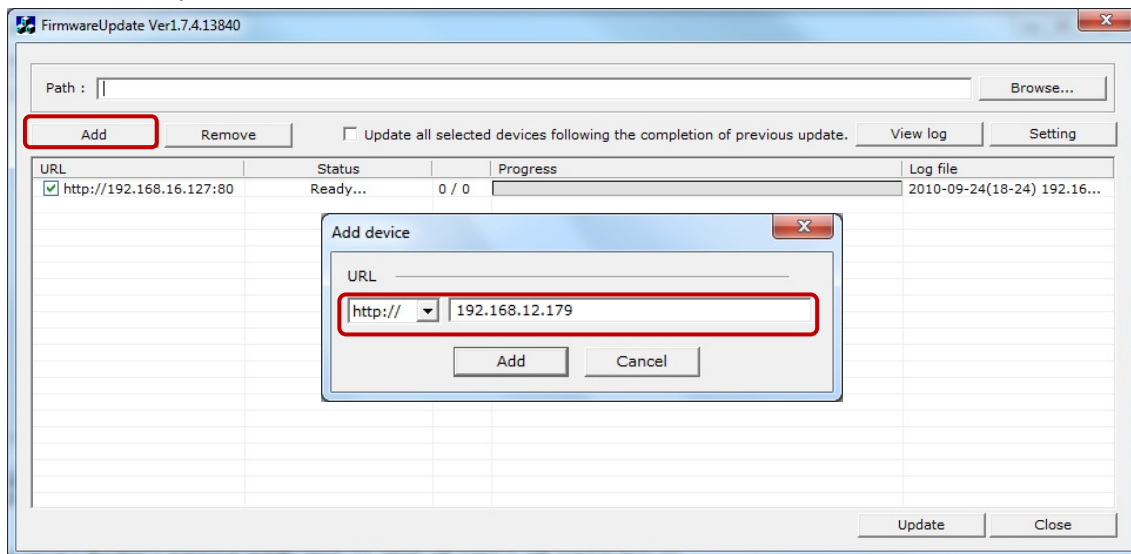

Figure 11. Adding device for firmware update

Tip. To remove devices from the selected list :

If you want to remove the device from the selected list, select the URL check box and click the *Remove* button. Then, the selected device is removed.
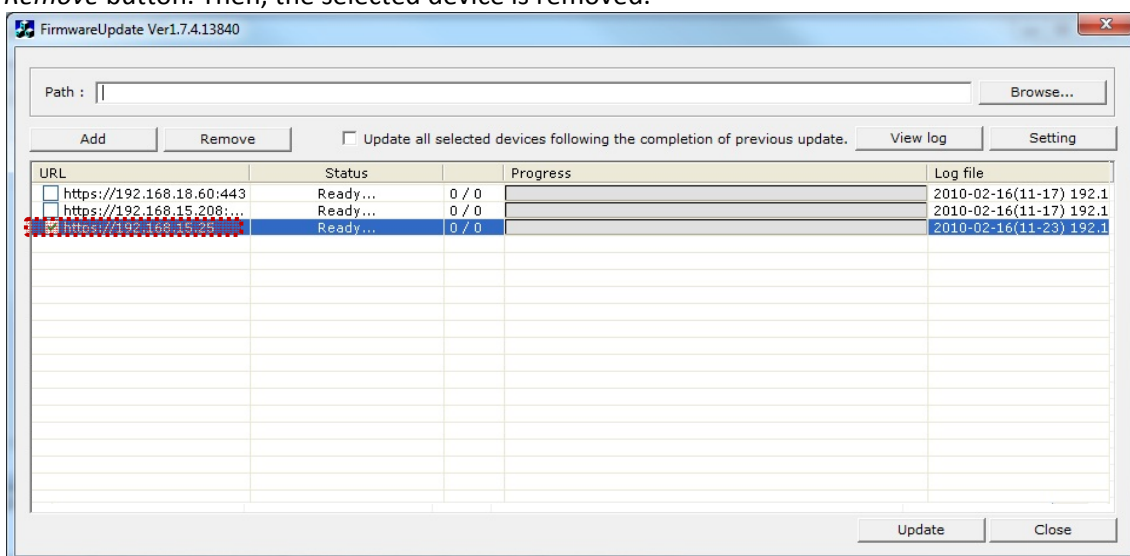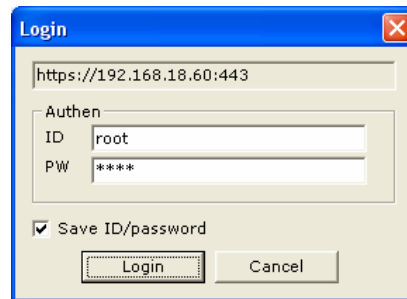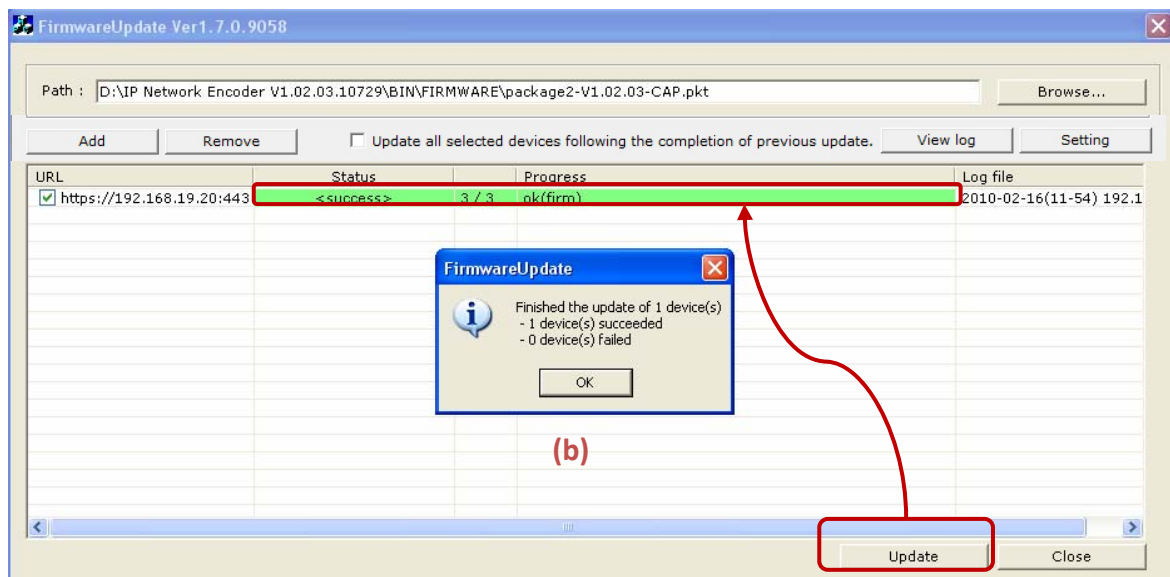

Figure 12. Removal of a device

Step2. Browse the firmware file and update

Now, if you have selected all the devices you want to update, select the firmware file (file format: *.pkt) by clicking the **Browse** button, and then click the **Update** button. It requires the log-in authentication as picture below (a). Type the ID and password of administrator authentication. The factory default is 'root' (ID) and 'pass' (password). Wait for a few seconds and the progress bar will show you the current status of update. If the update process is completed, the '*All update finish'* message box appears as below.

(a)
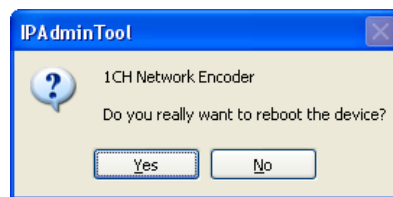

(b)

Figure 13. Completed firmware update

Step3. Reboot the system

After the firmware update, you should wait for about 1 minute until the device restarts. If your device is not shown on the scanned list of IPAdminTool even after the update and reboot of the system, click the **Refresh** button or try to type the IP address on the Internet Explorer's address bar.

4.Other Features

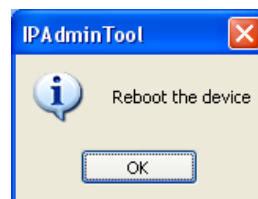## 4.1. How to reboot the device remotely

You can reboot the IP device by clicking the **Reboot** button or the **Reboot** option from the shortcut menu. If you choose the **Reboot** menu, the dialog box (a) appears as shown below. Then, click the **Yes** button to log into the device by entering your ID and password as the pop-up window (b). After that, click the **OK** button on the pop-up window (c). Now, the device will get restarted in about 1.5 minutes.

(a)

(b)

(c)

Figure 14. Device reboot

4.2. How to set the retransmit interval for mDNS queries

To set the MDNS message frequency, select **Setup** > **Frequency Setting** from the menu. If the pop-up window appears as below, set the desired frequency and click the **Save** button to save the changes.
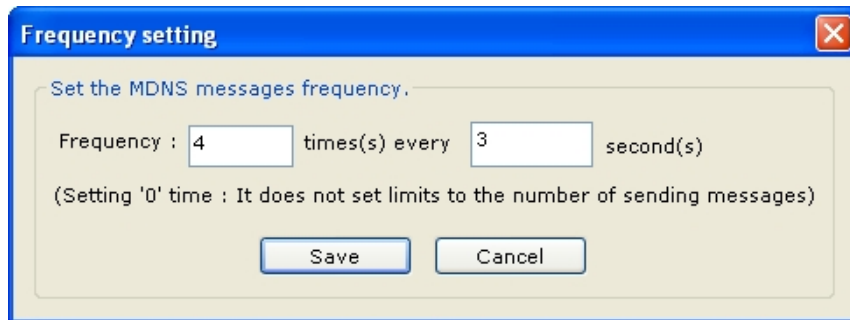

Figure 15. mDNS frequency

What is mDNS?
The IPAdminTool uses a specific protocol, multicast DNS (mDNS), to get the information of devices on the network. When the IPAdminTool is run by a user, it sends the packets which request the answers from devices. The results are shown on each tab of IPAdminTool.

You can adjust the retransmit interval for the mDNS queries in this menu.

As an example above, if you set the frequency as '4 times every 3 seconds,' your IPAdminTool would send out the mDNS queries 4 times in every 3 seconds and you will get the responses from all devices. If you set the times as '0,' it keeps sending the queries without limit.

If you have completed the setting, click the **Refresh** button on the main menu of IPAdminTool. Then, the list will be refreshed according to your frequency setting.

Note 1. Too frequent mDNS queries may result in the increase of the network load.
Note 2. IP address and port number for mDNS is 224.0.0.251:5353.